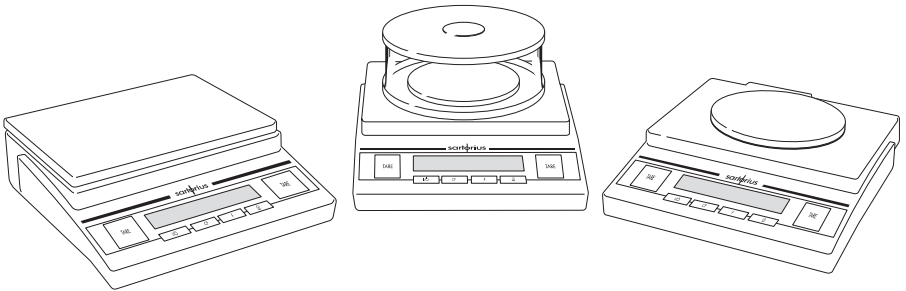


Sartorius Basic^{lite} Series Sartorius Gold Series

Electronic Precision Balances
and Gold Scales

Operating Instructions



Practical Use

The Basic^{lite} Series and Gold Series from Sartorius offer precision balances/scales with capacities ranging from 1 mg to 12 kg.

These balances/scales meet the highest requirements on the accuracy and reliability of weighing results through the following features:

- Efficient filtering-out of unfavorable ambient conditions such as vibrations, drafts, etc.
- Stable and reproducible results
- Rugged, durable weighing system

Basic^{lite} balances and Gold scales save work and speed up simple routine applications through:

- Ultrafast response times
- Easy operation

You can also choose from the following extra functions for simple applications:

- Toggling between weight units
- Net-total formulation (tare memory)
- Counting
- Weighing in percent
- Averaging

Warning and Safety Information

Read these operating instructions thoroughly before using your balance/scale to prevent damage to the equipment. Keep these instructions in a safe place.

Follow the instructions below to ensure safe and trouble-free operation of your balance/scale:

- ⚠ Make sure that the voltage rating printed on the AC adapter is identical to your local line voltage
- ⚠ Use only a commercially available 9-volt block battery or rechargeable battery

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- ⚠ Do not use this balance/scale in a hazardous area/location
- The only way to turn the power off completely is to disconnect the AC adapter
- Connect only Sartorius accessories and options, as these are optimally designed for use with your balance/scale.
- Protect the AC adapter from contact with liquid.

Do not open the balance/scale housing. If the seal is broken, this will result in forfeiture of all claims under the manufacturer's warranty.

Getting Started

Warranty

Do not miss out on the benefits of our full warranty. Complete the warranty registration card, indicating the date of installation, and return the card to your Sartorius office or dealer.

Storage and Shipping Conditions

Do not expose the balance/scale to shocks, vibrations, moisture or extreme temperatures.

Unpacking the Balance/Scale

- After unpacking the balance/scale, check it immediately for any visible damage as a result of rough handling during shipment.
- If you see any sign of damage, proceed as directed in the chapter entitled "Care and Maintenance," under the section on "Safety Inspection."

Save the box and all parts of the packaging until you have successfully installed your balance/scale. Only the original packaging provides the best protection for shipment. Before packing your balance/scale, unplug all connected cables to prevent damage.

Equipment Supplied

The equipment supplied includes the components listed below:

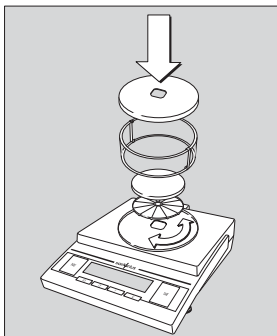
- Balance/scale
- Weighing pan/load plate
- Pan support (only with models that have a round weighing pan)
- Glass draft shield (only with model BL150S)
- AC adapter
- Operating instructions

Installation Instructions

Your balance/scale is designed to provide reliable weighing results under normal ambient conditions. When choosing a location to set up your balance/scale, observe the following so that you will be able to work with added speed and accuracy:

- Set up the balance/scale on a stable, even surface
- Avoid placing the balance/scale in close proximity to a heater or otherwise exposing the balance/scale to heat or direct sunlight
- Protect the balance/scale from drafts that come from open windows or doors
- Avoid exposing the balance/scale to extreme vibrations during weighing
- Protect the balance/scale from aggressive chemical vapors
- Do not expose the balance/scale to extreme moisture over long periods

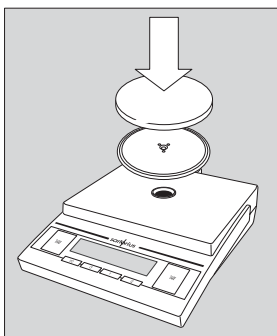
Conditioning the Balance/Scale:
Moisture in the air can condense on the surfaces of a cold balance/scale whenever it is brought into a substantially warmer place. If you transfer the balance/scale to a warmer area, make sure to condition it for about 2 hours at room temperature, leaving it unplugged from AC power.



Setting up the Balance/Scale

Basic^{lite} Balances with a Glass Draft Shield:

- Place the components listed below on the balance in the order given:
 - Shield ring – place it on the balance so that the edge for fitting the glass draft shield faces upwards and turn it until it is firmly in place.
 - Pan support
 - Weighing pan
 - Glass draft shield
 - Draft shield cover

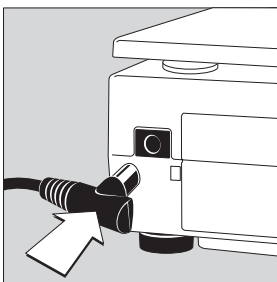


Basic^{lite} Balances/Gold Scales with a Round Weighing Pan

- Place the components listed below on the balance in the order given:
 - Pan support
 - Weighing pan/load plate

Basic^{lite} Balances/Gold Scales with a Rectangular Weighing Pan

- Place the weighing pan/load plate on the balance/scale

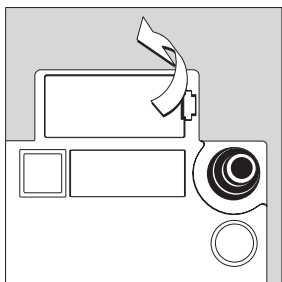


Connecting the Balance/Scale to AC Power/ Safety Precautions

Use only

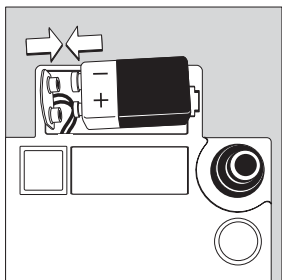
- Original Sartorius AC adapters
- Insert the right-angle plug into the jack
- The AC adapter rated to Class 2 can be plugged into any wall outlet without requiring any additional safety precautions

The ground is connected to the balance/scale housing, which can be additionally grounded for operation.

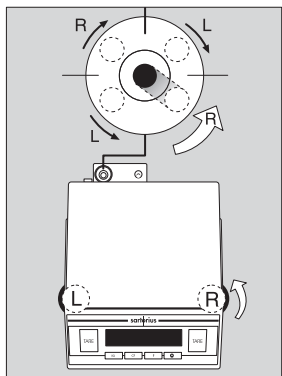


Using a (Rechargeable) Battery

- Battery is not included with the equipment supplied
- ⚠ Use only a commercially available (rechargeable) 9-volt block battery
- ⚠ When using a rechargeable battery, always use an external recharging device to recharge the battery
- Lay the balance/scale on its side
- Open the battery compartment: Lift the compartment cover



- Insert the 9-volt (rechargeable) block battery in the compartment
- Make sure to connect the positive and negative poles correctly
- ⚠ All used batteries are classified as waste that requires special handling (not "household" waste). Dispose of rechargeable batteries in accordance with the applicable special waste disposal regulations.
- Close the battery compartment: Press down on the cover until it clicks into place



Leveling the Balance/Scale

(only for models BL150S, BL1500S, GM1502)

Level the balance/scale any time you set it up in a new location.

Use only the 2 front feet of the balance/scale for leveling.

- Turn the 2 rear feet until they are in position (only on models BL1500S and GM1502)
- Turn the 2 front feet as shown here in the illustration until the air bubble is centered in the level indicator
- > In most cases this will require several adjustment steps



Operating the Balance/Scale

Basic Weighing Function

Available Features

- Taring the balance/scale
You can tare the balance within the entire weighing range.

Preparation

- Turn on the balance/scale: Press 
- To change configurations: See the chapter entitled "Configuring the Balance/Scale"
- To load factory-set configurations:
See "Configuring the Balance/Scale," parameter 9 – 1
- To tare the balance/scale: Press 



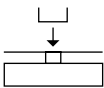

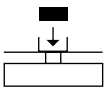
Additional Functions

- To turn off the balance/scale: Press 

Example

Basic weighing

Menu code settings: Factory-set codes

Step	Key (or instruction)	Display
1. Turn on the balance/scale		
Self-test is performed		
2. Place container on balance/scale (here: 52 g)		+ 52.0 g
3. Tare the balance/scale		+ 0.0 g
4. Place sample in container on balance/scale (here: 150.2 g)		+ 150.2 g

Calibration/Adjustment*

Always calibrate/adjust the balance/scale after setting it up in a new location.

Available Features

Calibration/adjustment can only be performed when

- there is no load on the balance/scale,
- the balance/scale is tared,
- the internal signal is stable.

If these conditions are not met, an error message is displayed.

The weight required for calibration/adjustment is displayed (see "Accessories" for calibration weights).





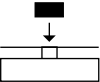
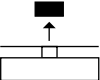
On Basic^{lite} balances, calibration/adjustment can be performed with any of three weight units: g, kg, or lb (menu code 1.4.x)

Factory setting: Grams (menu code 1.4.1)

Example

Calibrate the balance/scale

Menu code settings: Factory-set codes

Step	Key (or instruction)	Display
1. Turn on the balance/scale		
2. Tare the balance/scale		0.0 g
3. Begin calibration	 >2 sec.	+ 1000.0
Calibration weight is displayed without weight unit (here: 1000 g)		
4. Place the indicated calibration weight on the balance/scale		1000.0
After calibration, the calibration weight is displayed with wt. unit		
		+ 1000.0 g
5. Remove the calibration weight		0.0 g

* "Calibration" technically means to determine the difference between the balance readout and the actual weight on the pan to determine the accuracy. Adjustment means to bring a balance into the state of accuracy required for its use. Therefore, "calibration," as used in this manual, actually means "adjustment."

Application Programs

Counting

Purpose

With the Counting program you can determine the number of parts that each have approximately equal weight.

Available Features

- Store the current weight value to have it loaded as the preset reference sample quantity next time you initialize the Counting application
- The reference sample quantity can be changed in the operating menu:
See “Configuring the Balance/Scale”
- The average piece weight is automatically output via the optional data interface port after initialization, if the menu code for “Printout with data ID codes” is set
- Press to toggle the display between piece count and weight

Factory Settings

Reference sample quantity: 10 (menu code **3. 3. 2**)

Preparation

- Configure the Counting application in the operating menu:
See “Configuring the Balance/Scale”
Menu code **2. 1. 4** Counting

- Reference sample quantity:
Menu code **3. 3. 1** 5 pcs
Menu code **3. 3. 2** 10 pcs
Menu code **3. 3. 3** 20 pcs
Menu code **3. 3. 4** 50 pcs
Menu code **3. 3. 5** 100 pcs

See also “Configuring the Balance/Scale”





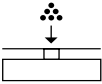



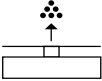

Example

Determine an unknown piece count; weigh the preset reference sample quantity

Settings (changes in the factory settings required for this example):

Menu: Application program: Counting (2 1 4)

Reference sample quantity: 20 pcs (3.3.3)

Step	Key (or instruction)	Display
1. Turn on the balance/scale		
2. Tare the balance/scale		0.0 g
3. Display the reference sample quantity (here: 20 pcs)	 > 2 sec.	rEF 20 (briefly)
4. Place the reference sample quantity (20 pcs) on the balance/scale (here: 66 g)		+ 66.0 g
5. Start the application; if the print format is set to include data ID codes, the following is printed		+ 20 pcs wRef + 3.3 g
6. Weigh uncounted parts (here: 174 pcs)		+ 174 pcs
7. Display weight		+ 574.2 pcs
8. Display quantity		+ 174 pcs
9. Unload the balance/scale		0 pcs
10. Delete the reference value		
11. Repeat the procedure starting from Step 6, if desired.		

Weighing in Percent

Purpose

This application program allows you to obtain weight readouts in percent which are in proportion to a reference weight.

Available Features

- Store the current weight value to have it loaded as the preset reference percentage next time you initialize the Counting application
- The reference percentage can be changed in the operating menu:
See “Configuring the Balance/Scale”
- The reference percentage is automatically output via the optional data interface port after initialization, if the menu code for “Printout with data ID codes” is set
- Press **[F]** to toggle the display between percentage and weight

Factory Settings

Reference percentage: 10 (menu code **3.3.2**)

Preparation

- Configure the Weighing in percent application in the operating menu:
See “Configuring the Balance/Scale”
Menu code **2.1.5** Weighing in percent
- Reference percentage:

Menu code 3.3.1	5 %
Menu code 3.3.2	10 %
Menu code 3.3.3	20 %
Menu code 3.3.4	50 %
Menu code 3.3.5	100 %

See also “Configuring the Balance/Scale”





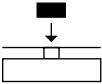



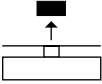

Example

Determine an unknown percentage; store the weight on the balance/scale as a reference percentage

Settings (changes in the factory settings required for this example):

Menu: Application program: Weighing in percent (2 1 5)

Menu: Reference percentage 100 % (3 3 5)

Step	Key (or instruction)	Display
1. Turn on the balance/scale		
2. Tare the balance/scale		0.0 g
3. Display the reference percentage	 > 2 sec.	REF 100
4. Place the reference weight for 100% on the balance/scale (here: 222.5 g)		+ 222.5 g
5. Start application; if the print format is set to include data ID codes, the following is printed		+ 100.0 % Wxx% + 222.5 g
6. Place an unknown weight on the balance/scale (here: 322.5 g)		+ 140.4 %
7. Display weight		+ 222.5 g
8. Display percentage		+ 100.0 %
9. Unload the balance/scale		0.0 %
10. Delete the reference percentage		
11. Repeat the procedure starting from Step 6, if desired.		

Averaging

Purpose

Use this program to determine weights under unstable ambient conditions. In this program, the balance/scale calculates the weight as the average value from a defined number of individual weighing operations. These weighing operations are also known as "subweighing operations" or "subweighs."

Available Features

- The measured result displayed is the arithmetic mean shown in the selected weight unit; a triangle under the plus or minus sign indicates that this is a calculated value
- You can set the number of subweighing operations performed in the operating menu: See "Configuring the Balance/Scale"
- Press **[F]** for at least 2 sec. to display the pre-set number of subweighing operations
- Press **[F]** to toggle the display between the calculated result and the weight

Factory Settings

Number of subweighs for averaging: 10 (3.3.2)

Preparation

- Configure the Averaging application in the operating menu:
See "Configuring the Balance/Scale"
Menu code 2.1.2 Averaging
- Number of subweighs for averaging:
3.3.1 5 subweighs
3.3.2 10 subweighs
3.3.3 20 subweighs
3.3.4 50 subweighs
3.3.5 100 subweighs





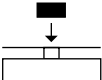

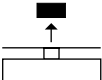

See also "Configuring the Balance/Scale"

Example

Determine the weight of a sample in extremely unstable ambient conditions by calculating the average of 10 subweighing operations.

Settings (changes in the factory settings required for this example):

Menu: Application program: Averaging (menu code 2. 1. 12)

Step	Key (or instruction)	Display
1. Turn on the balance/scale		
2. Tare the balance/scale		0.0 g
3. Display the number of subweighs (here: 10)	 > 2 sec.	rEF 10 (briefly)
4. Place sample on the balance/scale (weight readout fluctuates; here: around 275 g)		+ 8888
5. Start measurement		+ 8888 10 9 8 ... 1
After 10 subweighs		+ 275.5 g △
If the print format is set to include data ID codes, the following is printed		RES + 275.5 g
6. Unload the balance/scale		+ 275.5 g △
7. Delete the result		
8. Repeat the procedure starting from Step 4, if desired.		



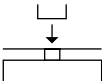

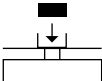

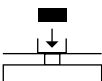


Net-Total Formulation/Second Tare Memory

With this application program you can weigh in components for formulation of a mixture.

Preparation

Configure the Nettotal formulation/Second tare memory application in the operating menu: See "Configuring the Balance/Scale"
Menu code **2.1.3**

Example

Step	Key (or instruction)	Display
1. Turn on the balance/scale		
2. Place an empty container on the balance/scale		+ 65.0 g
3. Tare the balance/scale		
4. Add the first component		+ 120.5 g
5. Store the first component weight		0.0 g _{NET}
If the print format is set to include data ID codes, the following is printed		N1 + 120.5 g
6. Add the next component		+ 70.5 g
7. Store the 2nd component weight		0.0 g _{NET}
8. Add further components, if desired	As described for Steps 5 and 6	
9. Display total weight and fill to desired final weight		+ 191.0 g

Toggle between Weight Units

With this application program you can toggle the display of a weight value back and forth between two weight units.

Configure the “Toggle weight units” application in the operating menu:
See “Configuring the Balance/Scale” menu code **2.1.2** Toggle weight units
(Factory setting on Gold Series scales)

Menu code	Unit	Conversion factor	Abbr. on printout
1.7.1 3.1.1	Taiwanese tael [*] (only selectable on Gold scales)	0.02666666000	o
1.7.2 o 3.1.2 o	Grams	1.00000000000	g
1.7.3 3.1.3	Kilograms	0.00100000000	kg
1.7.4 3.1.4	Carats	5.00000000000	ct
1.7.5 3.1.5	Pounds	0.00220462260	lb
1.7.6 3.1.6	Ounces	0.03527396200	oz
1.7.7 3.1.7 #	Troy ounces	0.03215074700	ozt
1.7.8 3.1.8	Hong Kong tael	0.02671725000	tlh
1.7.9 3.1.9	Singapore tael	0.02645544638	tlS
1.7.10 3.1.10	Taiwanese tael	0.02666666000	tlt
1.7.11 3.1.11	Grains	15.43235835000	GN
1.7.12 3.1.12	Pennyweights	0.64301493100	dwt
1.7.13 3.1.13	Milligrams	1000.00000000000	mg
1.7.14 3.1.14	Parts per pound	1.12876677120	/lb
1.7.15 3.1.15	Chinese tael	0.02645547175	tlc
1.7.16 3.1.16	Mommes	0.26670000000	mom
1.7.17 3.1.17	Austrian carats	5.00000000000	K
1.7.18 3.1.18	Tola	0.08573333810	tol
1.7.19 3.1.19	Baht	0.06578947437	bat
1.7.20 3.1.20	Mesghal	0.21700000000	MS
1.7.22 3.1.22	lb/oz – Gold scales only	0.03527396200	o

* = Readability in 1st increment; o = Factory setting; # = Factory setting in Gold scales only

- Increased resolution for 1st weight unit in Gold scales:
Menu code **1.8.1** standard; menu code **1.8.3** increased resolution
- Increased resolution for 2nd weight unit in Gold scales:
Menu code **3.2.1** standard; menu code **3.2.3** increased resolution

Function

- To toggle the display between the 1st and 2nd weight units:
Press the F key

Configuring the Balance/Scale

Setting the Parameters (Menu Codes)

You can configure your Basic^{lite} balance or Gold scale to meet individual requirements by selecting from the parameters available in the menu.

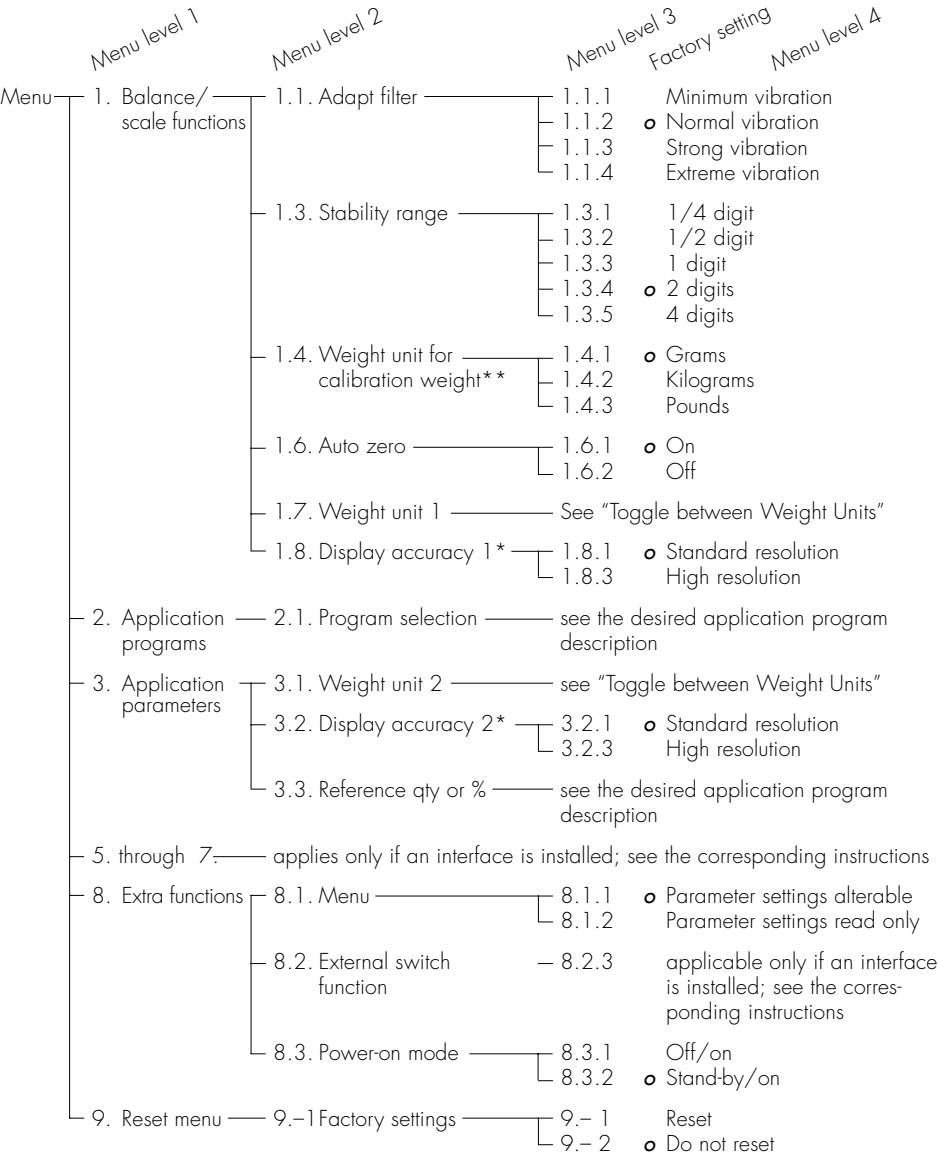
Example: Adapt the balance/scale to unstable ambient conditions:

Menu code 1 1 4

Step	Key (or instruction)	Display
1. Turn off the balance/scale		
2. Turn the balance/scale back on; while all segments are displayed	 briefly	
<input type="radio"/> To navigate within a menu level; the last menu option is followed by the first option	repeatedly	1. 2. ... 9. 1.
3. Select the 2nd menu level		1. 1.
4. Select the 3rd menu level		1. 1. 2 o
5. In Menu Level 3: Select the desired option	repeatedly	1. 1. 4
6. Confirm new setting; the "o" indicates the currently set option	for 2 sec.	1. 1. 4 o
<input type="radio"/> Select the next menu level (here: move from the 3rd to the 1st level)		1.
<input type="radio"/> Set other menu codes, if desired	,	
7. Store parameter settings and exit operating menu or	for 2 sec.	
<input type="radio"/> Exit operating menu without storing changes		
> Restart the application		0.0 g

Balance/Scale Operating Menu (Overview)

- o Factory setting
- √ User setting



* = Gold scales only

** = Basic^{lite} balances only

Error Codes

Error codes are shown in the main display for approx. 2 seconds, after which the program automatically returns to the weighing mode.

Display	Cause	Solution
No segments appear on the display	No AC power is available The AC adapter is not plugged in Battery is dead	Check the AC power supply Plug in the AC adapter Replace the battery Recharge the battery using an external recharging device
H	The load exceeds the balance/scale capacity	Unload the balance/scale
L	The load plate is not in place Something is touching the load plate	Place the load plate on the balance/scale Move the object that is touching the load plate
E 01	Display capacity exceeded: Value to be output cannot be shown on the display	Decrease the weight on the scale
E 02	Calibration parameter not met; e.g.: – balance/scale not zeroed – balance/scale is loaded	Calibrate only when zero is displayed Press [TARE] to tare the balance/scale Unload the balance/scale
E 10	The [TARE] key is blocked when there is data in the second tare memory (net-total) – only 1 tare function can be used at a time	Press [CF] to clear the tare memory and release the tare key
E 11	Value input is not allowed for second tare memory	Press [TARE]
E 22	Weight is too light or there is no sample on the balance/scale	Increase the reference quantity
E 30	Interface port for printer output is blocked	Contact your local Sartorius Service Center
Max. weighing range is less than indicated under "Specifications"	The balance/scale was turned on without the weighing pan in place	Place the weighing pan on the balance/scale and press [1/0] to turn on the balance/scale
The weight readout is obviously wrong	The balance/scale has not been calibrated/adjusted The balance/scale was not tared before weighing	Calibrate/adjust the balance/scale Tare before weighing

If any other errors occur, contact your local Sartorius Service Center!

Care and Maintenance

Service

Regular servicing by a Sartorius technician will extend the service life of your balance/scale and ensure its continued weighing accuracy. Sartorius can offer you service contracts, with your choice of regular maintenance intervals ranging from 1 month to 2 years.

Repairs

Repair work must be performed by trained service technicians. Any attempt by untrained persons to perform repairs may lead to hazards for the user.

Cleaning

- ⚠ Disconnect the balance/scale from the AC adapter and unplug any data cables that are connected to the balance/scale
- ⚠ Make sure that no liquid enters the balance/scale housing
- ⚠ Do not use any aggressive cleaning agents (solvents or similar agents)
- Clean the balance/scale using a piece of cloth which has been wet with a mild detergent (soap)
- After cleaning, wipe down the balance/scale with a soft, dry cloth

Safety Inspection

If there is any indication that safe operation of the balance/scale with the AC adapter is no longer warranted:

- Turn off the power and disconnect the equipment from AC power immediately

- > Lock the equipment in a secure place to ensure that it cannot be used for the time being

Safe operation of the balance/scale with the AC adapter is no longer ensured when:

- there is visible damage to the AC adapter
- the AC adapter no longer functions properly
- The AC adapter has been stored for a relatively long period under unfavorable conditions

In this case, notify your nearest Sartorius Service Center or the International Technical Support Unit based in Goettingen, Germany. Maintenance and repair work may only be performed by service technicians who are authorized by Sartorius and who

- have access to the required maintenance manuals
- have attended the relevant service training courses

Instructions for Recycling the Packaging

To ensure safe shipment, your balance/scale has been packaged using environmentally friendly materials. After successful installation of the balance/scale, you should return this packaging for recycling.

For information on recycling options, including recycling of old weighing equipment, contact your municipal waste disposal center or local recycling depot.

Overview

Specifications

General specifications:

AC power source/power requirements		AC adapter, 230 or 115 V, +15%...-20%	
Frequency		48-60 Hz	
Power requirements, direct current	V	10 to 20	
Power consumption (average)	W	0.75	
Operating temperature range		-10...+40 °C (263...313 K, 32 °F...104 °F)	
Adaptation to ambient conditions		By selection of 1 of 4 optimized filter levels	
Display update (depends on the filter level selected)		0.1-0.4	
Dimensions (WxDxH)	mm	188x250x70 (without glass draft shield cylinder)	

Specifications for the individual models:

Basic^{lite} Series and Gold Series

Model		BL150S	BL1500S, GM1502	BL610, GM612	BL310, GM312	BL150	BL6100, GM6101
Weighing capacity	g	150	1,500	610	310	150	6,100
Readability	g	0.001	0.01	0.01	0.01	0.01	0.1
Tare range (by subtraction)	g	150	1,500	610	310	150	6,100
Reproducibility	≤±g	0.0015	0.015	0.01	0.01	0.01	0.1
Linearity	≤±g	0.003	0.03	0.02	0.02	0.02	0.2
Sensitivity drift within +10...+30 °C/+50...+86°F	≤±/K	3.3·10 ⁻⁶	3.3·10 ⁻⁶	0.5·10 ⁻⁵	1·10 ⁻⁵	2·10 ⁻⁵	0.5·10 ⁻⁵
Response time (average)	s	2.5	2.5	2	2	1.5	2
External calibration weight (of at least accuracy class...)	g lb*	100 (F1) 0.2 (F1)	1000 (F1) 2 (F1)	500 (F2) 1 (F2)	100 (F2) 0.2 (F2)	100 (M1) 0.2 (M1)	5,000 (F2) 10 (F2)
Net weight, approx.	kg	1.6	1.4	1.1	1.1	1.1	1.4
Pan size	mm	100 Ø	174x143	116 Ø	116 Ø	116 Ø	174x143
Hours of operation with 9-volt block battery, approx.	h	-	-	11	11	11	11
Hours of operation with fully charged 9-volt block battery, approx.	h	-	-	2.5	2.5	2.5	2.5

* = BL models only

Basic^{lite} Series and Gold Series

Model		BL3100, GM3101	BL1500	BL600, GM601	BL12	BL6	BL3
Weighing capacity	g	3,100	1,500	610	12,000	6,000	3,000
Readability	g	0.1	0.1	0.1	1	1	1
Tare range (by subtraction)	g	3,100	1,500	610	12	6	3
Reproducibility	≤±g	0.1	0.1	0.1	1	1	1
Linearity	≤±g	0.2	0.2	0.2	2	2	2
Sensitivity drift within +10...+30 °C/+50...+86°F	≤±/K	1·10 ⁻⁵	2·10 ⁻⁵	5·10 ⁻⁵	2.5·10 ⁻⁵	5·10 ⁻⁵	10·10 ⁻⁵
Response time (average)	s	2	2	2	2	2	2
External calibration weight (of at least accuracy class...)	g	1,000 (F2)	1,000 (M1)	500 (M1)	5,000 (M1)	5,000 (M1)	1,000 (M1)
	lb*	2,000 (F2)	2,000 (M1)	1,000 (M1)	10,000 (M1)	10,000 (M1)	2,000 (M1)
Net weight, approx.	kg	1.4	1.4	1.4	1.4	1.4	1.4
Pan size	mm	174×143					
Hours of operation with 9-volt block battery, approx.	h	11	11	11	11	11	11
Hours of operation with fully charged 9-volt block battery, approx.	h	2.5	2.5	2.5	2.5	2.5	2.5

Gold Series

Model		GM1205
Weighing capacity	g	1,200
Readability	g	0.05
Tare range (by subtraction)	g	1,200
Reproducibility	≤±g	0.05
Linearity	≤±g	0.1
Sensitivity drift within +10...+30 °C/+50...+86°F	≤±/K	2·10 ⁻⁵
Response time (average)	s	2
External calibration weight (of at least accuracy class...)	g	1,000 (F2)
Net weight, approx.	kg	1.4
Pan size	mm	174×143
Hours of operation with 9-volt block battery, approx.	h	11
Hours of operation with fully charged 9-volt block battery, approx.	h	2.5

* = BL models only

Accessories (Options)

Product	Order No.	Product	Order No.
Interface port, installation kit	YDO01BL	Carrying case	YDB01BL
Data printer with date/time, statistical data evaluation and transaction counter functions and LCD (YDO01BL required)	YDP03-OCE	Dust cover – for models with a round weighing pan – for models with a rectangular weighing pan	YDC02BL YDC01BL
Paper (5 rolls)	6906937	Weighing bowls – 300 ml, weight: 86 g, stainless steel – 1000 ml, wt.: 240 g, stainless steel – 300 ml, wt.: 22 g, aluminum – 270 ml, wt.: 62 g, 137 Ø mm stainless steel	6407 641211 69641304 YWP03G
Remote display (YDO01BL required) – reflective – for overhead projectors, transmissive	YRD12Z YRD13Z	Calibration weights – for the BL150S (100 g; F1) – for the BL150, BL310, GM312 (100 g; F2) – for the BL610, BL600, GM612, GM601 (500 g; F2) – for the BL1500S, GM1502 (1 kg; F1) – for the BL1500, BL3100, BL3, GM3101, GM1205 (1 kg; F2) – for the BL6100, BL6, BL12, GM6101 (5 kg; F1)	YCW5138 YCW5148 YCW5548 YCW6138 YCW6148 YCW6538
External rechargeable battery pack YRB07Z with external battery charger (hours of operation: 20 or 40, depending on balance/scale model)			
SartoWedge data transfer software YSW01 for on-line storage on weighing data			
Interface cable for connecting a PC; 25-pin	7357312		
Universal remote control switch: (YDO01BL required) Foot switch with T-connector Hand switch with T-connector	YFS01 YHS01		
T-Connector for connecting 2 peripheral devices (YDO01BL required)	YTC01		

CE Marking

The **CE** marking affixed to the equipment indicates that the equipment meets the requirements of the following Directive(s):

Council Directive 89/336/EEC “Electromagnetic compatibility (EMC)”

Applicable European Standards:

Limitation of emissions:

EN 50081-1 Residential, commercial and light industry

EN 50081-2 Industrial environment

Defined immunity to interference:

EN 50082-1 Residential, commercial and light industry

EN 50082-2 Industrial environment

Important Note:

The operator shall be responsible for any modifications to Sartorius equipment and for any connections of cables or equipment not supplied by Sartorius and must check and, if necessary, correct these modifications and connections. On request, Sartorius will provide information on the minimum operating specifications (in accordance with the Standards listed above for defined immunity to interference).

Council Directive 73/23/EEC

“Electrical equipment designed for use within certain voltage limits”

Applicable European Standards:

EN 60950 Safety of information technology equipment including electrical business equipment

EN 61010 Safety requirements for electrical equipment for measurement, control and laboratory use
Part 1: General requirements

If you use electrical equipment in installations and under ambient conditions requiring higher safety standards, you must comply with the provisions as specified in the applicable regulations for installation in your country.

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The Sartorius logo consists of the word "sartorius" in a bold, lowercase, sans-serif font. A vertical line passes through the letter "o", which is highlighted with a yellow circle.